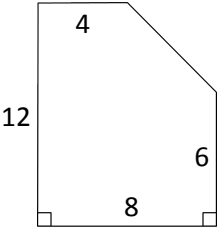# Algebra and Geometry Review 10

1. Solve this equation.

   $2(x - 3) - 4(3x - 2) = 12$

2. What is the difference between the median of a triangle and the altitude of a triangle? Can they be the same line?

3. How many real solutions does this quadratic equation have? (Hint: Use the discriminant.)

   $3x^2 + 5x + 12 = 0$

4. If 25% of a circle is shaded and the circle has a radius of 10, what is the area of the shaded portion?

5. Can a system of linear equations have zero solutions? Explain.

6. Find the area of the figure.

7. The sum of 3 consecutive even integers is 66. What is 2 more than twice the largest integer?

8. What type of triangle is each of the following? (acute, right or obtuse)

   A) 8, 15, 17

   B) 3, 5, 7

9. If you multiply two integers together and then add 4, the result is 40. Give an example of two possible integers that satisfy this situation.

10. A rectangular field has dimensions of 100 ft by 200 ft. If someone ran diagonally across it, how far did they run?